

## Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

### I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:

Address:

City:

State:  Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☐ Yes ☒ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☐ Yes ☒ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.**

Natalie Perez, Operations Manager  
nperez@wildlifehc.org  
301-588-8994

8738 Colesville Rd, Suite 800, Silver Spring, MD

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.**

<https://www.wildlifehc.org/wp-content/uploads/2015/08/Whistleblower-Policy.pdf>

**For the Applicant/Recipient**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Natalie Perez

B. Title of Authorized Official

Operations Manager

C. Date

03/25/2022

**For the U.S. Environmental Protection Agency**

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. \*Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

**\* See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. \* Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.



# EPA KEY CONTACTS FORM

OMB Number: 2030-0020  
Expiration Date: 06/30/2024

**Authorized Representative:** *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

<b>Name:</b>	<b>Prefix:</b>	<b>First Name:</b>	<b>Middle Name:</b>
		Daniel	
	<b>Last Name:</b>		<b>Suffix:</b>
	Goldfarb		
<b>Title:</b>	Director of Conservation and Community		
<b>Complete Address:</b>			
<b>Street1:</b>	8737 Colesville Rd.		
<b>Street2:</b>	Suite 800		
<b>City:</b>	Silver Spring	<b>State:</b>	MD: Maryland
<b>Zip / Postal Code:</b>	20910	<b>Country:</b>	USA: UNITED STATES
<b>Phone Number:</b>	301-588-4219	<b>Fax Number:</b>	
<b>E-mail Address:</b>	dgoldfarb@wildlifehc.org		

**Payee:** *Individual authorized to accept payments.*

<b>Name:</b>	<b>Prefix:</b>	<b>First Name:</b>	<b>Middle Name:</b>
		Kurt	
	<b>Last Name:</b>		<b>Suffix:</b>
	Eder		
<b>Title:</b>	Accounting Coordinator		
<b>Complete Address:</b>			
<b>Street1:</b>	8737 Colesville Rd.		
<b>Street2:</b>	Suite 800		
<b>City:</b>	Silver Spring	<b>State:</b>	MD: Maryland
<b>Zip / Postal Code:</b>	20910	<b>Country:</b>	USA: UNITED STATES
<b>Phone Number:</b>	301-588-8994	<b>Fax Number:</b>	
<b>E-mail Address:</b>	keder@wildlifehc.org		

**Administrative Contact:** *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

<b>Name:</b>	<b>Prefix:</b>	<b>First Name:</b>	<b>Middle Name:</b>
		Natalie	
	<b>Last Name:</b>		<b>Suffix:</b>
	Perez		
<b>Title:</b>	Operations and Grant Manager		
<b>Complete Address:</b>			
<b>Street1:</b>	8737 Colesville Rd.		
<b>Street2:</b>	Suite 800		
<b>City:</b>	Silver Spring	<b>State:</b>	MD: Maryland
<b>Zip / Postal Code:</b>	20910	<b>Country:</b>	USA: UNITED STATES
<b>Phone Number:</b>	240-247-0904	<b>Fax Number:</b>	
<b>E-mail Address:</b>	nperez@wildlifehc.org		

# EPA KEY CONTACTS FORM

**Project Manager:** *Individual responsible for the technical completion of the proposed work.*

**Name:** **Prefix:**  **First Name:**  **Middle Name:**

**Last Name:**  **Suffix:**

**Title:**

**Complete Address:**

**Street1:**

**Street2:**

**City:**

**State:**

**Zip / Postal Code:**

**Country:**

**Phone Number:**

**Fax Number:**

**E-mail Address:**

## Other Attachment File(s)

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\* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

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To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

## Project Narrative File(s)

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\* Mandatory Project Narrative File Filename:

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

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To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006  
Expiration Date: 02/28/2022

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity  (a)	Catalog of Federal Domestic Assistance Number  (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Site selection for air pollution sensors, installation and connectivity & existing monitors across geographies	66.034	\$	\$	50,420.00	60,000.00	110,420.00
2. Guided implementation: Monitoring training and data interpretation across schools site locations	66.034			267,440.00	0.00	267,440.00
3. Community led implementation at urban and community forestry sites, greening, and community sites	66.034			57,400.00	35,000.00	92,400.00
4. Enhanced Community Air Monitoring Workshops and public dissemination of information; Reporting of results	66.034			84,740.00	28,000.00	112,740.00
5. Totals		\$	\$	460,000.00	123,000.00	583,000.00

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# SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Site selection for air pollution sensors, installation and connectivity & existing monitors across geographies	Guided implementation: Monitoring training and data interpretation across schools site locations	Community led implementation at urban and community forestry sites, greening, and community sites	Enhanced Community Air Monitoring Workshops and public dissemination of information; Reporting of results	
a. Personnel	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 100,000.00
b. Fringe Benefits	6,750.00	6,750.00	6,750.00	6,750.00	27,000.00
c. Travel	1,170.00	3,670.00	3,670.00	1,170.00	9,680.00
d. Equipment	0.00	9,520.00	19,480.00	0.00	29,000.00
e. Supplies	0.00	0.00	0.00	3,320.00	3,320.00
f. Contractual	0.00	70,000.00	0.00	16,000.00	86,000.00
g. Construction	0.00	0.00	0.00	0.00	0.00
h. Other	15,000.00	150,000.00	0.00	30,000.00	195,000.00
i. Total Direct Charges (sum of 6a-6h)	47,920.00	264,940.00	54,900.00	82,240.00	\$ 450,000.00
j. Indirect Charges	2,500.00	2,500.00	2,500.00	2,500.00	\$ 10,000.00
k. TOTALS (sum of 6i and 6j)	\$ 50,420.00	\$ 267,440.00	\$ 57,400.00	\$ 84,740.00	\$ 460,000.00
7. Program Income	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Site selection for air pollution sensors, installation and connectivity & existing monitors across geographies	\$ 0.00	\$ 0.00	\$ 60,000.00	\$ 60,000.00
9. Guided implementation: Monitoring training and data interpretation across schools site locations	0.00	0.00	0.00	0.00
10. Community led implementation at urban and community forestry sites, greening, and community sites	0.00	0.00	35,000.00	35,000.00
11. Enhanced Community Air Monitoring Workshops and public dissemination of information; Reporting of results	0.00	0.00	28,000.00	28,000.00
12. TOTAL (sum of lines 8-11)	\$ 0.00	\$ 0.00	\$ 123,000.00	\$ 123,000.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 360,000.00	\$ 120,000.00	\$ 150,000.00	\$ 45,000.00	\$ 45,000.00
14. Non-Federal	\$ 40,000.00	10,000.00	10,000.00	10,000.00	10,000.00
15. TOTAL (sum of lines 13 and 14)	\$ 400,000.00	\$ 130,000.00	\$ 160,000.00	\$ 55,000.00	\$ 55,000.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. Site selection for air pollution sensors, installation and connectivity & existing monitors across geographies	\$ 30,000.00	\$ 0.00	\$ 0.00	\$ 0.00
17. Guided implementation: Monitoring training and data interpretation across schools site locations	25,000.00	0.00	0.00	0.00
18. Community led implementation at urban and community forestry sites, greening, and community sites	25,000.00	0.00	0.00	0.00
19. Enhanced Community Air Monitoring Workshops and public dissemination of information; Reporting of results	20,000.00	0.00	0.00	0.00
20. TOTAL (sum of lines 16 - 19)	\$ 100,000.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: \$450,000	22. Indirect Charges: \$10,000
23. Remarks: 10% indirect rate multiplied by WHC personnel total of \$100,000 allocated to this project	

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## Application for Federal Assistance SF-424

\* 1. Type of Submission:

- ☐ Preapplication  
☒ Application  
☐ Changed/Corrected Application

\* 2. Type of Application:

- ☒ New  
☐ Continuation  
☐ Revision

\* If Revision, select appropriate letter(s):

\* Other (Specify):

\* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

MD

### 8. APPLICANT INFORMATION:

\* a. Legal Name:

Wildlife Habitat Council

\* b. Employer/Taxpayer Identification Number (EIN/TIN):

52-1558579

\* c. Organizational DUNS:

6267825100000

### d. Address:

\* Street1:

8737 Colesville Rd.

Street2:

Suite 800

\* City:

Silver Spring

County/Parish:

\* State:

MD: Maryland

Province:

\* Country:

USA: UNITED STATES

\* Zip / Postal Code:

20910-3968

### e. Organizational Unit:

Department Name:

Conservation and Community

Division Name:

### f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

\* First Name:

Patricia

Middle Name:

\* Last Name:

Billette

Suffix:

Title: Manager of Conservation and Community

Organizational Affiliation:

\* Telephone Number:

971-998-8865

Fax Number:

\* Email: pbillette@wildlifehc.org

## Application for Federal Assistance SF-424

### \* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

### \* 10. Name of Federal Agency:

Environmental Protection Agency

### 11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities  
Relating to the Clean Air Act

### \* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

\* Title:

Enhanced Air Quality Monitoring for Communities

### 13. Competition Identification Number:

Title:

### 14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

### \* 15. Descriptive Title of Applicant's Project:

Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424****16. Congressional Districts Of:**\* a. Applicant \* b. Program/Project 

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

**17. Proposed Project:**\* a. Start Date: \* b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="460,000.00"/>
* b. Applicant	<input type="text" value="123,000.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="583,000.00"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:

Middle Name:

\* Last Name:

Suffix:

\* Title: \* Telephone Number:  Fax Number: \* Email: \* Signature of Authorized Representative:  \* Date Signed:

Manifest for Grant Application # GRANT13580584

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 30776 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments\_1\_2-V1.2.pdf (size 16011 bytes)

2. Form SF424\_3\_0-V3.0.pdf (size 24129 bytes)

3. Form SF424A-V1.0.pdf (size 24722 bytes)

4. Form EPA4700\_4\_3\_0-V3.0.pdf (size 22769 bytes)

5. Form OtherNarrativeAttachments\_1\_2-V1.2.pdf (size 15898 bytes)

6. Form EPA\_KeyContacts\_2\_0-V2.0.pdf (size 37339 bytes)

Attachments Included in Zip File (total 2):

1. ProjectNarrativeAttachments\_1\_2 ProjectNarrativeAttachments\_1\_2-Attachments-1235-Narrative Attachment\_EPA.pdf application/pdf (size 583509 bytes)

2. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1234-Attachments\_USEPA.pdf application/pdf (size 2229515 bytes)

See

## **Optional Attachments**

RFA: EPA-OAR-OAQPS-22-01

### **Contents:**

#### **Section 5: Quality Assurance Statement**

#### **Section 6: Staff Biographies/Expertise**

Sara Cook

Daniel Goldfarb

Patricia Billette

#### **Section 6: Letters of Support**

Temboo

Alkebu-Lan Village Community Center (CDC)

Canfield Consortium (CDC)

Chicago 10<sup>th</sup> Ward Alderwoman Sadlowski-Garza

NW Indiana Regional Planning Commission

Southeast Michigan Stewardship Coalition

The Evolved Group

See

## Section 5 – Quality Assurance Statement

**Project Title:** Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region

Wildlife Habitat Council and Community Partners applying for the *Enhanced Air Quality Monitoring for Communities* RFA#: EPA-OAR-OAQPS-22-01.<sup>1</sup>

**QA/QC Lead:** Sara Cook, Director of Business Development, Wildlife Habitat Council. Please see Staff Bios Optional Section 6 for details on Sara Cook's Air Quality QA/QC background.

**Describe the organization's general approach for conducting quality assurance:** The project's technical partner, Temboo, directs installation of particulate matter sensors, including advising on sensor siting, remote signal testing, and remote installation. Ongoing maintenance, including required system checks, will be conducted in accordance with equipment specifications and all applicable data quality standards. Temboo staff will support data collection and interpretation and provide reports for review and analysis by Wildlife Habitat Council (WHC) staff (see details below). Localized air quality data collected by these sensors will be compared against the existing/available data from certified air quality monitoring networks maintained by local, state, and federal agencies.

### QA Project Plan:

**Who will use the data:** Community-based partners in Detroit, Chicago and NW Indiana listed in our project narrative will have access to all data, analysis, and interpretation. Temboo will help all partners establish connectivity to air monitoring stations, both already installed by agencies, municipalities, and industries as well as to any new sensors we install as part of our Community Air Monitoring project. Our partners City of Chicago 10<sup>th</sup> Ward Office, SE Michigan Stewardship Coalition, University of Michigan Dearborn, and Northwest Indiana Regional Planning Commission (NIRPC) will collaborate to provide all community partners with air quality interpretation and educational/training workshops to youth groups and adults who are part of community partner programs.

**Project's goals/objectives/questions or issues:** This project seeks to install over 80 stationary and hand-held air quality monitoring sensors to quantify localized inhalable particulate matter 2.5 micrometers and smaller in size (PM<sub>2.5</sub>) and particulate matter 10 micrometers in size and smaller (PM<sub>10</sub>) at a total of 12 sites, both preidentified and community selected. The project also seeks to clarify the benefits of urban forestry projects of various sizes with respect to air quality improvement. Information collected from the sensors will be interpreted and shared with a diverse audience through partnerships with digital access platforms, grassroots community partners, and educational institutions.

**Decision(s) to be made from the information obtained:** This program builds on established WHC-led

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We used the following USEPA guidelines to structure and complete our Quality Assurance Statement (Section 5 Attachment) <https://www.epa.gov/grants/implementation-quality-assurance-requirements-organizations-receiving-epa-financial> then used: <https://www.epa.gov/sites/default/files/2015-06/documents/g5-final.pdf> USEPA Guidance for Quality Assurance Plans EPA QA/G5 as template.



See

corporate/community greening efforts and directly empowers community-based organizations and schools to leverage air pollution information in support of deploying green infrastructure and other greening efforts (vegetative buffers) as a proactive and positive engagement tool between the public and private sector. Air quality information collected by these sensors will be used to engage local students in statistical analysis, environmental education, data communications and other STEM-related learning activities. Data will be compared against community information indicating the presence or absence of green infrastructure in and around the target communities enable locally informed decisions on greening project opportunities for pollution mitigation. Projects will be selected because of the data collected and analyzed and presented to corporations and local businesses to facilitate investment in green infrastructure and community forestry projects. Finally, we plan to use a [CommuniTree Insights Platform](#) managed by the Evolved Group where ethnographic and community ideas and solutions can be used to facilitate the interaction between scientific-based experiences, greening or urban forestry experiences, and implementation of nature-based projects that can mitigate air pollution in urban-industrial neighborhoods in the Great Lakes region of SE MI & the Calumet watershed.

**How, when, and where project information will be acquired or generated:** Project partners will consult relevant USEPA guidance documents to assist in the location of sensors. There are already multiple types and locations of sensors in each of the urban-industrial neighborhoods applying for this project. The sensors we plan to use for air quality are from a company called [National Control Devices](#). Specifically, we plan to use this [air quality sensor](#) unless counter indicated by USEPA and other partners. We will use remote sensing systems linked to cloud locations to store data & generate reports.

**Possible problems/mitigation actions:** We expect to deal with technical issues related to connectivity, remote sensing and communications, weather impairments, energy sources, etc., early in the process but troubleshooting and support from our technical partner will assure issues are resolved promptly.

**What type, quantity, and quality of data are specified:** Air quality monitoring data that will be used to inform this project will be localized concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> as measured by sensors at key locations. Additional data to inform the project will come from certified air monitoring networks provided by local, state, and federal agencies. Temboo will oversee and share monitoring data with the project's community partners, via automatically generated environmental monitoring analyses that visualize sensor data in a friendly, approachable, and engaging manner. A key component is the *Temboo gateway*. The gateway serves as a bridge between environmental sensors and data visualization and insights platform in the cloud. All partners will have access to this data and interpretation. The project will also orient and inform community partners about regulatory air monitoring networks.

**How "good" those data have to be to support the decision to be made:** Data collected must fall within the manufacturer specified tolerance to be considered valid. However, by comparing localized data to that which is recorded by nearby certified air monitoring stations, the project team can assure data to a degree that both provides STEM learning opportunities for area students while also informing greening project selection.

**How the data will be analyzed, assessed, and reported:** As specified above, we will use Temboo's cloud-based system that automatically generates a complete environmental monitoring analysis and interpretation of results that presents sensor data in a friendly, approachable, and engaging manner. A cloud site called gateway serves as a bridge between air monitoring environmental sensors and the Temboo data visualization and insights platform. Reporting will be done by the collaborative of partners at the regional level and then between interacting geographies.

See

## **SECTION 6: Resumes/Bios of the Project Manager and Other Key Personnel**

**Sara Cook:** Sara has over 18 years of experience in the environmental sector and is skilled in the areas of environmental compliance, environmental management systems, and sustainability, as well as government and public affairs. She has multi-media experience in the waste and recycling industry, in a regulatory capacity, and as a regional manager of environmental and public affairs in the construction materials and cement manufacturing industry. While working in the cement industry, Sara managed air quality compliance and reporting, including overseeing air quality monitors and data collection, validation, analysis, and reporting. She has a bachelor's degree in Natural Resources and Environmental Management from Ball State University, in Muncie, Indiana. Related work experience includes 11 years as Manager of Environment and Public Affairs with LafargeHolcim. Prior to that, she was an Air Quality Inspector at Maricopa County Air Quality Division in Phoenix, Arizona, where she helped shape departmental air quality policy and enforce local and federal air quality regulations.

**Daniel Goldfarb:** As Director, Conservation & Community Partnerships, Daniel works with Wildlife Habitat Council member companies and their communities develops partnerships on habitat restoration and land stewardship bringing about community participation and increasing ecosystem values for natural or degraded areas. He works to advance ecosystem management and restoration in the Chicago Wilderness Region by assembling and managing conservation and education partnerships between industries, environmental agencies, and conservation NGOs. He is a Restoration Ecologist with 20 years of ecological reuse and restoration experience in urban lands and waters, industrial properties, and low-income communities. Daniel helped found and generate programs for Groundwork Gary and Calumet is My Backyard, a partnership between the Chicago Public Schools, Field Museum and WHC dedicated to school and community environmental stewardship. Daniel received his BS in Natural Resources Management and Fresh Water Ecology from Cornell University, MS in Forest Ecology from Michigan State University, and MFA in Design and Ecology from the School of the Art Institute of Chicago.

**Patricia Billette,** Manager, Conservation & Community Engagement, Wildlife Habitat Council will lead the project implementation with WHC & partner staff. She received her B.S. in Fisheries & Wildlife Science with a specialization in Conservation Genetics from Oregon State University, and has 14 years of experience in environmental education, curriculum design and implementation, and wildlife management for a wide array of native and exotic species. She also has 5 years of experience with project management and team leadership relating to community outreach and engagement and has facilitated numerous projects entailing engagement of multicultural stakeholders. She was the lead project manager on a \$350k grant from DTE foundation connecting corporations and communities across Detroit and SE Michigan.

See

## Letters of Support



March 20, 2022

Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

To Whom it May Concern,

Temboo is pleased to support the Wildlife Habitat Council's request for funding through the EPA's Enhanced Air Quality Monitoring for Communities Grants Program. This project involving the collection of local air quality data will make advances towards addressing historic health inequalities resulting from environmental air quality hazards.

Temboo is committed to this work because it will lead to improvements not only for the environment but also for the communities and people in the affected areas.

Many environmental groups, community-based organizations, educational institutions, and government bodies across the country have partnered with Temboo to utilize our technical expertise and community-focused environmental data platform. We are looking forward to working with the Wildlife Habitat Council to assist with the deployment of air quality sensors and the ongoing collection and monitoring of air quality data for this project. We have been discussing community interest in air quality monitoring with the Wildlife Habitat Council regularly and would enthusiastically support this project with our technical expertise and experience.

Temboo hopes that the EPA will provide support for this transformational project.

My best,

A handwritten signature in black ink, appearing to read "Vaughn Shinall".

Vaughn Shinall  
Head of Product Outreach

Temboo | 104 Franklin Street NYC | 212.274.8555 | [temboo.com](http://temboo.com)

See



3/18/2022

Patricia Billette  
Manager, Conservation & Community Engagement  
Wildlife Habitat Council

Dear Ms. Billette,

It is my pleasure to write in support of the Wildlife Habitat Council's Enhanced Air Quality Monitoring for Communities Proposal: **Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region**. As an enthusiastic partner in this effort, Alkebu-Lan Village is excited to fully engage in the monitoring efforts and engagement with the data produced. With a successful, established program teaching the girls in our "Kati Girls" youth cohort to monitor local PM levels and channel that information into public advocacy efforts, AKBV leadership can contribute extremely specialized and relevant outreach experience to this partnership.

We are pleased to join the group of companies working in Hamtramck and Detroit, as well as educational partners across the city of Detroit and the University of Michigan, Dearborn to implement this project that measures and connects corporations' green infrastructural efforts along the I-94 corridor to the residents of this area. We plan to support this project by hosting a data collection station, by engaging the asset of our Kati Girls programmatic experience to mentor other youth programs initiating similar projects, and by hosting a community outreach workshop to put this information in the hands of our community members- the population most directly affected by poor air quality associated with the heavy industrial presence of neighboring business parks.

Our community struggles with extremely poor air quality, with flooding, and with noise pollution, all of which are detrimental to quality of life and health. This air quality monitoring program complements and strengthens our existing partnership with Wildlife Habitat Council on other grant programs funded by the National Fish & Wildlife Service and the Great Lakes Restoration Initiative to holistically assess and improve environmental health in our neighborhood. This project is a meaningful step toward addressing the concerns of this community in a balanced and inclusive manner, and we are proud to support this effort and participate in it as an active partner and host organization.

Thank you,

A handwritten signature in dark ink, appearing to read "Gregory McKenzie", is written over a light blue horizontal line.

**Gregory McKenzie**  
Business Development Coordinator  
Alkebu-Lan Village, Inc.  
[www.alkebulanvillage.com](http://www.alkebulanvillage.com)  
313 - 578 - 1300

See



3/22/2022

Patricia Billette  
Manager, Conservation & Community Engagement  
Wildlife Habitat Council

Dear Ms. Billette,

I am writing on behalf of Canfield Consortium in support of the Wildlife Habitat Council's Enhanced Air Quality Monitoring for Communities Proposal: **Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region**. This partnership will expand on Canfield's leadership role advocating for clean air for residents of our neighborhood while connecting our work in this area to similar initiatives, concerns, and resources across the region.

We are pleased to join the group of partners working in the Great Lakes region to improve access to real-time air quality information and technical support to explore and understand the implications of the data collected. In our own neighborhood, residents struggle with extremely poor air quality and unpleasant odors as a result of our proximity to the Stellantis (formerly FiatChrysler) plant that was recently expanded. While Stellantis has hosted calls to address residents' concerns with odor coming from the plant, I believe data collected by this program will be a tangible asset that our residents can rely on that does not originate with Stellantis. This will also be a beneficial addition to our Alley Activation ecosystem, building on our partnership with University of Michigan, Dearborn, Detroit Ain't Violent It's Safe, and the Wildlife Habitat Council to holistically examine the capacity of our neighborhood alleys to mitigate flooding and food insecurity while serving as spaces for learning and community building.

This air quality monitoring program complements and strengthens our existing partnership with Wildlife Habitat Council on other projects such as the Salazar Center Thriving Cities Challenge. We look forward to meaningfully engaging our residents in annual workshops and other outreach opportunities to better understand and advocate for the health of our neighborhood atmosphere.

Thank you,

A handwritten signature in cursive script that reads "Kimely Theus".

**Kimely Theus**  
President  
Canfield Consortium  
<https://www.canfieldconsortium.org/>

See



**SUSAN SADLOWSKI GARZA**  
**ALDERWOMAN, 10TH WARD**

10500 S. Ewing Ave. Floor 1  
Chicago, Illinois 60617  
Ward Office Phone: (773) 768-6138  
Ward Office Fax: (773) 768-8176  
www10@cityofchicago.org

**CITY COUNCIL**  
**CITY OF CHICAGO**  
**COUNCIL CHAMBER**

City Hall - Third Floor, Room 390  
121 North LaSalle Street  
Chicago, Illinois 60602  
Workforce Development Office: (312) 744-3078

**COMMITTEE MEMBERSHIPS**

**CHAIRWOMAN**  
**COMMITTEE ON WORKFORCE DEVELOPMENT**

Budget and Government Operations  
Committees and Rules  
Education and Child Development  
Ethics and Government Oversight  
Finance  
Health and Human Relations  
Special Events, Cultural Affairs, and Recreation  
Workforce Development

March 24<sup>th</sup>, 2022

Dear Ms. Billette,

It is my pleasure to write in support of the Wildlife Habitat Council's Enhanced Air Quality Monitoring for Communities Proposal: Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region. As an enthusiastic partner in this effort, Alkebu-Lan Village is excited to fully engage in the monitoring efforts and engagement with the data produced. With a successful, established program teaching (insert some reference to your school or institutional Air program), (NIRPC, USFS, NEO/High Vistas HS, City of Chicago Bureau of Forestry, SCA) leadership can contribute extremely specialized and relevant outreach experience to this partnership. We are pleased to join the group of organizations and companies working as part of the CommuniTree Partnership in Northwest Indiana and Chicago's 10th Ward to increase the urban canopy and reduce urban heat island, localized air pollution such as Particulate Matter and Ozone, stormwater impacts, and improve the public health of our neighborhoods.

We plan to support this project by hosting an air monitoring data collection station and equipment for our schools and community use and access. We look forward working with our community and schools partners throughout our Calumet Region and link to the efforts of similar organizations in the Detroit area to link both of our communities together in data interpretation and analyses workshops and find urban forestry solutions to our air pollution impacts.

Our community struggles with extremely poor air quality, with flooding, and with noise pollution, all of which are detrimental to quality of life and health. This air quality monitoring program complements and strengthens our existing partnership with Wildlife Habitat Council on other grant programs funded by the US Forest Service Great Lakes Restoration Initiative to holistically assess and improve environmental health in our neighborhood. This project is a meaningful step toward addressing the concerns of this community in a balanced and inclusive manner, and we are proud to support this effort and participate in it as an active partner and host organization.

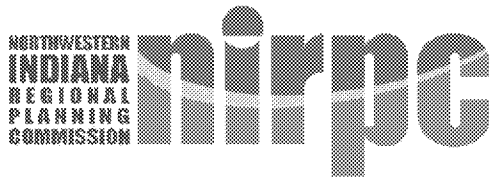
Thank you,

Susan Sadlowski Garza

Printed in House

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See



8100 Southport Road  
Portage, Indiana 46368  
(219) 763-6060  
www.nirpc.org

March 21, 2022

Dear Ms. Billette,

It is my pleasure to write in support of the Wildlife Habitat Council's Enhanced Air Quality Monitoring for Communities Proposal: **Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region**. As an enthusiastic partner in this effort, the Northwest Indiana Regional Planning Commission (NIRPC) is excited to fully engage in the monitoring efforts and engagement with the data produced. As the Council of Governments for Northwest Indiana, we have many years of experience partnering with municipalities on collaborative projects to improve quality of life in their communities.

As a founding organization in the CommuniTree Partnership in Northwest Indiana we have worked since 2017 to improve urban forestry efforts in our region. With the support of the U.S. Forest Service, we have sub-awarded over 1000 native trees to public and non-profit partners. We also continue to host tree planting, tree care, and urban forestry workshops for tree recipients. We promoted the benefits of the urban tree planting such as increasing urban canopy, reducing urban heat island, localized air pollution reduction, stormwater impacts, improved public health in our neighborhoods in a qualitative way. This project would provide a basis for better quantifying the air quality and public health benefits of investment in urban forestry at the neighborhood level.

This project strongly complements our proposal submitted for the Enhanced Air Quality Monitoring for Communities RFA. Our application, entitled Northwest Indiana Regional Air Monitoring for Environmental Justice Communities focuses on identifying and monitoring air quality hot spots in the cities of East Chicago, Gary, Hammond, and Michigan City. We are partnering directly with municipalities, local universities, and environmental educators in these communities to ensure community engagement and participation of decision makers. One goal of our project proposal is to use the monitoring results to help communities make data driven decisions about the tools within their municipal toolbox that can reduce and mitigate localized air pollution impacts.

Urban forestry is an important air pollution mitigation strategy within that municipal toolbox. If selected for funding, the Natural Resource Planner at NIRPC will participate in this project and ensure coordination of community engagement, deployment of monitoring equipment, and data sharing across both projects. We will incorporate the resulting data in Communitree Workshops and in future Long-Range Transportation Plans for Northwestern Indiana.

Region environmental justice communities experience higher asthma rates and poorer health outcomes than others in our region. This air quality monitoring program complements our proposal to identify air pollution hot spots in environmental justice communities while strengthening our Communitree Partnership. NIRPC is proud to support this effort and participate in it as an active partner and host organization.

Sincerely,

Kathy Luther  
Director of Environmental Programs



OFFICE of RESEARCH DEVELOPMENT AND ADMINISTRATION

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*Research@EMU: Elevating Communities, Inspiring Generations*

March 18, 2022

Daniel Goldfarb  
Director of Conservation Initiatives  
Wildlife Habitat Council  
Suite 800  
8737 Colesville Road  
Silver Spring, MD 20910

Dear Mr. Goldfarb and Reviewers:

The Southeast Michigan Stewardship Coalition (SEMIS) is pleased to write a letter of support for "Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region," the Wildlife Habitat Council (WHC)'s proposal to EPA's Enhanced Air Quality Monitoring for Communities program. Founded in 2007, the SEMIS Coalition is an award-winning, research-based program housed at Eastern Michigan University (EMU). SEMIS provides a holistic support system and learning community for teachers from 30 schools and over 25 community organizations in Southeast Michigan. SEMIS and EMU are proud to partner with WHC to meaningfully engage the highly impacted communities of Detroit and Ypsilanti, MI with air quality monitoring efforts and data.

The SEMIS Coalition will guide the following activities in this program:

- **Student Projects:** Students at southeast Michigan schools will install and use sensors to collect and interpret environmental data. They will have the opportunity to use data, together with place-based education (PBE) investigations, to drive stewardship and civic action projects in their schools and communities. Students will also have the opportunity to share their projects and experiences at the SEMIS Community Forum in the spring of each year.
- **Teacher Professional Development:** SEMIS hosts an annual ecojustice-oriented learning series, attended by 40-60 teachers, that supports coalition-wide PBE work. As part of this series, SEMIS will work with other project partners to 1) recruit teachers to participate in air quality sensor/data workshops, 2) support the use of air quality/environmental data by teachers and students, and 3) integrate air quality topics into the SEMIS learning series and highlight projects that use air quality sensors/data. We will draw from our large network of established relationships to ensure successful teacher recruitment and professional development via the learning series.

200 Boone Hall, Ypsilanti, MI 48197 • 734.487.3090

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<http://www.emich.edu/research>



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OFFICE of RESEARCH DEVELOPMENT AND ADMINISTRATION

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*Research@EMU: Elevating Communities, Inspiring Generations*

- **Enhance our Climate Resilience From the Youth Up Curriculum**, incorporating air quality concepts through connections to SEMIS' ecojustice education approach and climate change effects in southeast Michigan and across the Great Lakes region.

Ecojustice-focused PBE is of central importance to SEMIS and EMU, and this project will help us take key steps to incorporate air quality themes into our existing offerings. Our work locates environmental issues within a broader vision of community resilience, health, and well-being and uses these as foundations for place-based education. We believe this vision is central to our success, and we look forward to sharing our resources and experiences with the broader WHC coalition as part of this project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ethan Lowenstein".

Ethan Lowenstein, PhD  
Director, SEMIS  
Professor, Eastern Michigan University

A handwritten signature in cursive script, appearing to read "Erica Goff".

Erica Goff, Director  
Office of Research Dev. & Admin.  
Eastern Michigan University

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200 Boone Hall, Ypsilanti, MI 48197 • 734.487.3090

<http://www.emich.edu/research>

See

The **EVOLVED** Group

Wildlife Habitat Council  
8737 Colesville Road, Suite 300  
Silver Spring, MD 20910  
301.588.8994

**Att: Daniel Goldfarb**  
Director Conservation Partnerships

Mar 23, 2012

To: Wildlife Habitat Council

We are excited to write in support of the Wildlife Habitat Council's **Air Quality Monitoring for Communities** application to the **USEPA Office of Air and Radiation** on air quality monitoring and improvement in highly impacted and under resourced neighborhoods of Detroit, MI, and the coastal Cabinet Region of Northwest Indiana and Chicago's 10<sup>th</sup> Ward. As an enthusiastic partner in this effort, The Evolved Group is excited to fully support the team in their monitoring efforts and community engagement, helping to make sense of the data produced.

This work expands these community's capacity to monitor air quality, quantify the effects of urban and community forestry and nature-based solutions on local air quality, and engage youths in high school and college on data interpretation. Sensors will be deployed at various local sites, and partners will be provided with the technical insight needed to understand and share the collected information. We will build towards a powerful network of information about these highly impacted regions, led by the residents most impacted by poor air quality conditions.

We plan to support this project by providing a SaaS technology platform that enables our partners to listen, engage and derive relevant insights directly from the affected communities. We look forward working with our partners throughout the region to develop innovative solutions that can create regional impact. This air quality monitoring program complements and strengthens existing work being done with Wildlife Habitat Council to holistically assess and improve environmental health in region. This project is a meaningful step toward addressing the concerns of this community in a balanced and inclusive manner, and we are proud to support this effort and participate in it as an active partner and host organization.

Thank you,



Ric Edinberg, US President  
The Evolved Group  
[ric.edinberg@theevolvedgroup.com](mailto:ric.edinberg@theevolvedgroup.com)

[hello@theevolvedgroup.com](mailto:hello@theevolvedgroup.com) | [www.theevolvedgroup.com](http://www.theevolvedgroup.com)

Australia P: +61 3 9670 1909 | Level 3, 176 Wellington Parade, East Melbourne, Victoria, Australia 3002  
Evolved Studies Pty Ltd | ABN 91 181 220 705

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## Collaborative Air Quality Monitoring in Industrial Communities of the Great Lakes Region

**Applicant:** Wildlife Habitat Council (*No Set Aside*)

**Address:** 7200 Wisconsin Ave Suite 500, Bethesda, MD 20814

**Primary Contact:** Natalie Perez: [nperez@wildlifehc.org](mailto:nperez@wildlifehc.org) ///301.588.8994

**About WHC:** Since 1989, WHC has developed a unique approach to engaging the private sector in meaningful urban and rural ecological stewardship actions that connect a business challenge or opportunity to a conservation goal or outcome. At the center of this approach is employee and community engagement. WHC highlights the business benefit of ecological stewardship and helps companies design approaches that have a positive impact for nature while also showing positive outcomes for corporate reporting, community relations, employee engagement, and retention efforts.

### Project Partners & Contact Information:

Alkebu-Lan Village Center: *Development Director: Greg McKenzie: [GMckenziejr@alkebulanvillage.com](mailto:GMckenziejr@alkebulanvillage.com)*

Canfield Consortium: *President: Kim Theus: [Kim@canfieldst.org](mailto:Kim@canfieldst.org)*

Chicago 10<sup>th</sup> Ward Alderwoman: *Suzanne Sadlowski-Garza: [Susan.Sadlowski-garza@cityofchicago.org](mailto:Susan.Sadlowski-garza@cityofchicago.org)*

NW Indiana Regional Planning Commission: *Director of Env. Programs: Kathy Luther: [KLuther@nirpc.org](mailto:KLuther@nirpc.org)*

Fort Rouge Gateway Partnership: *Facilitator: Professor Paul Draus, PhD: [Draus@umich.edu](mailto:Draus@umich.edu)*

NEO Academy/High Vistas HS: *Executive Director: Rebecca Reiner: [RReiner@neoadulted.org](mailto:RReiner@neoadulted.org)*

Southeast Michigan Stewardship Coalition: *Director: Ethan Lowenstein, PhD. [ELowenste@emich.edu](mailto:ELowenste@emich.edu)*

The Evolved Group: US President: Ric Edinberg: [Ric.Edinberg@theevolvedgroup.com](mailto:Ric.Edinberg@theevolvedgroup.com)

**Project Location:** Neighborhoods adjacent to heavy industry in Detroit (SE MI. zip codes 48213, 48214, & 48217) and the Calumet watershed (South Chicago, IL. zip codes 60617 & NW IN. zip code 46368).

### Air Pollutant Scope: Particle Pollution (PM2.5 & PM10)

EPA Funding Requested	Total Project Cost
\$460,000.00	\$583,000.00

**Project Period:** November 2022 – December 2024 (26 months)

**Short Project Description:** This project seeks to engage a wide variety of Great Lakes regional partners such as corporations, educational coalitions, individual educational institutions, and community centers. Partners will collaborate to monitor and improve air quality in highly impacted and under resourced neighborhoods of Detroit, MI, and the Calumet watershed of South Chicago, Illinois. This work will expand on community capacity to monitor air quality, quantify the effects of corporate-implemented green infrastructure and other nature-based solutions on local air quality, and engage high school and college students in data interpretation to facilitate long term transfer of skills from technical partners to interested residents. Deploying sensors at schools, ecological reclamation sites, alley activation sites, and community centers, and providing those partners with the technical insight needed to understand and share the collected information will build a powerful network of information about these highly impacted regions, led by the residents most challenged by the historic conditions.

## Section I: Project Summary & Approach

### A. Overall Project:

This project seeks to install 84 air quality monitoring sensors to quantify localized inhalable particulate matter 2.5 micrometers and smaller in size (PM<sub>2.5</sub>) and particulate matter 10 micrometers in size and smaller (PM<sub>10</sub>) at a total of 12 sites 2-3 city blocks in size. Sites are both preidentified and community selected and are within the Calumet Watershed located in northwest Indiana (NW IN)/ southeast Illinois (SE IL) and in Detroit, Michigan. Sensors will be installed at schools, community forestry planting sites, and Wildlife Habitat Council (WHC) certified sites selected with community input. Data collected from the sensors will be interpreted and shared with a diverse audience through partnerships with digital access platforms, grassroots community partners, and educational institutions. Phased deployment, guided by a contractor in the first year and as-needed by a technical expert at WHC the second, will transfer technical capacity for air quality monitoring from contracted partners to community-led organizations to enable local leadership to advance the project. The data collected by these sensors will be accessible in near real time and used by students who will be guided through data analysis and dissemination in STEM coursework, individual or group projects. The data will be analyzed against the presence and absence of green infrastructure in select ecological reclamation sites to promote corporate engagement in such interventions that improve environmental quality, lead to biodiversity uplift and drive meaningful community engagement. This program will build on established WHC-led corporate/community greening efforts and directly empower community-based organizations and schools to leverage air pollution information in support of deploying green infrastructure and other greening efforts as a proactive and positive engagement tool between the public and private sector.

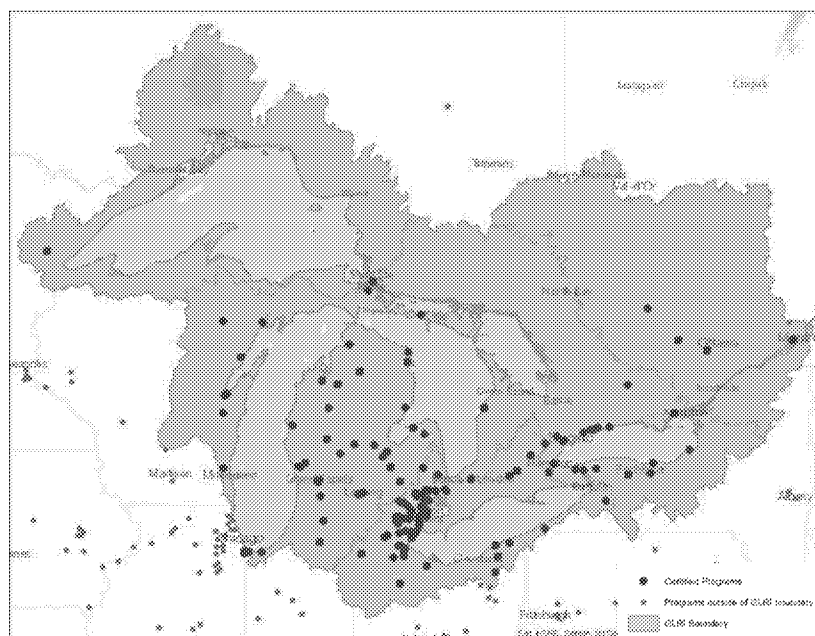
This project represents an equitably structured, community-first approach to air pollution monitoring and analysis in urban-industrial communities in Detroit, Chicago, and Northwest Indiana where neighborhood fragmentation and heavy industry have created high exposure levels to atmospheric PM. The project continues work begun in 2019 when the Wildlife Habitat Council convened a large and diverse group of partners working on local environmental and conservation issues with funding from the US Forest Service and Private Foundations to implement four goals of the **National Ten Year Urban and Community Forestry Plan (2016-2026)**. The result of this ongoing engagement (“Across Fence Lines”) has inspired a range of proactive, nature-based responses to air pollution using urban and community forestry. Through this effort, WHC has found that community-led actions establishing new urban forests, vegetated buffers using native plant material, reclaiming and revegetating abandoned alleys and vacant lots have led to localized climate resiliency, mitigation of urban heat-island effects and reduced atmospheric particulate matter and local pollutants. Installing air quality monitoring equipment at a suite of community selected sites, urban forest planting sites, and schools located in 4 of the Case Study regions examined in Across Fence Lines builds on that mechanism of pairing community and industrial stakeholders around a historically contentious issue by quantifying need and qualifying opportunity using real-time data. Conducting data collection at both community baseline sites and sites of voluntary corporate biodiversity uplift both incentivizes further greening by the private sector and opens a unique, positive channel of communication between industrial entities and the residential neighbors they impact. The quantification of the improvements tied to the corporate site efforts will facilitate long term adaptation, increasing green space as a practical tool for improving community environmental health, climate health, and socioeconomic resilience, as well as developing channels of

communication between residents and WHC members with active urban forestry projects: Marathon Detroit Refinery, Stellantis (Mack Avenue), the I-94 corridor Industrial Parks, & Calumet area steel mills.

## **B. Project Significance**

While air quality has improved in the United States over the past several decades, neighborhoods in urban-industrial areas of Detroit, Chicago and NW Indiana are seeing an increase in air pollutants due to the rapid redevelopment of formerly abandoned industrial corridors with increased truck traffic and lack of greenspace. Across the country people of color (POC), particularly Black and Hispanic Americans, are still exposed to higher-than-average levels of air pollution and in these urban-industrial cities, communities of color are exposed to higher levels of air pollution at every income level. In the 1930s, the Home Owners' Loan Corporation (HOLC) assigned risk grades to neighborhoods across the country based on racial demographics and other factors. "Hazardous" areas—often those whose residents included people of color—were outlined in red on HOLC maps. In the decades since, redlined neighborhoods experienced lower levels of private and public investment and have remained segregated. Neighborhoods designated as grade D (the least desirable), in Chicago, for example, have 50% more exposure to nitrogen dioxide (NO<sub>2</sub>) levels than "A" grade neighborhoods. In part, this is because some areas graded "C" or "D" in the 1930s already hosted heavy industry and other sources of pollution. Over time, a lack of investment in these neighborhoods also made them attractive for new polluting projects, like interstate highways, that required cheap land. And the new study found that "D" neighborhoods are generally more exposed, decades later, to dirty air, with more of their residents live near highways, railroads and industrial pollution sources. On a national basis, intraurban disparities for and NO<sub>2</sub> and inhalable particulate matter smaller than 2.5 micrometers (PM<sub>2.5</sub>) are substantially larger by historical HOLC grade than they are by race and ethnicity. However, within each HOLC grade, racial and ethnic air pollution exposure disparities persist, indicating that redlining was not the only racially discriminatory policy to impact communities. Multiple and recent air pollution illustrate how redlining, a nearly 80-year-old racially discriminatory policy, continues to shape systemic environmental exposure disparities in the United States. In these neighborhoods, high levels of exposure to atmospheric pollutants are paired with shuttered community centers and facilities, public schools in disrepair, and few resources for extracurricular educational engagements.

Figure 1: WHC Certified Sites Located within Great Lakes Restoration Initiative Project Area



These areas and the harsh environmental health conditions represent an opportunity for WHC-led engagement with industry on quantification of metrics to incentivize investment in canopy equity and other Nature-based solutions (NBS). Over the past 30 years, corporate engagement in community has evolved from arms-length philanthropic support for local charities to deeper engagement in needs-driven community investments. The private sector has increasingly embraced a citizenship role to address

community challenges while also securing its social license to operate and other reputational benefits. There are many ways companies can secure social license to operate, support community resilience and realize a business benefit. With over 30% of WHC members either based in or operating in the Great Lakes Region, along with a density of sites with certified programs (see Fig. 1). WHC has a unique opportunity to convene historically impactful parties around solutions by optimizing the density of activity in the region. Certification programs represent voluntary conservation, education work, stewardship, and habitat management by companies. Quantification of that work is of great interest to corporations seeking to understand the impacts and benefits of this voluntary engagement and certification provides a business reason for continuation and expansion of those efforts.

This proposal engages across sectors, socioeconomic demographics, and ecological contexts. Collaborative metric collection will empower residents to monitor their own air quality, create networks for data sharing and communication and engage in collaborative problem solving. A focus on understanding successful greening efforts with provide high impact industries with a business reason for continuing and increasing investments in NBS and other greening efforts. The dual corporate and public audience for this monitoring effort will both empower residents to monitor their own air quality and further incentivize voluntary pollution mitigation.

## Section II: Community Involvement

### A. Community Partnerships

This project was collaboratively designed with a wide variety of community partners to emphasize engagement with the data collected by a broad spectrum of community members:

1. In 2018, Alkebu-Lan Village (AKBV) pioneered an air quality stewardship program with their after-school program for young women, the KATI Girls. This project re-engages those learners and provides them with a new opportunity to engage in air quality monitoring as mentors and resources for

new participants in a network of similar sites across the region. This program will also showcase the established experience of these Black and Brown girls as experts and leaders in understanding and stewarding a complex part of their natural environment- a key outcome for AKBV leadership, as it builds on their programmatic history for asset-based empowerment of Black & Brown youth. Subaward funds will allow AKBV to re-start the program as well as fund their operational support with the logistics of a community outreach events bringing the data to residents of their neighborhood who do not participate in an ongoing program at the Village.

2. Canfield Consortium is a grassroots organization leading collaborative efforts with local corporation Stellantis (formerly FiatChrysler) to understand and mitigate their impact on air quality in residential areas abutting their facility. President Kim Theus and Vice President Rhonda Theus are key community representatives advocating for more accessible data around air pollution and how residents can understand their environment. This includes serving on the advisory panel for voicing concerns and developing a Social Benefits Agreement for the neighborhood most impacted by the expansion of the nearby production plant. Canfield's hyperlocal, established expertise in outreach and advocacy around air pollution impacts and progress makes the organization a powerful asset in bringing this information to highly interested residents in an accessible and utility-oriented way. Subaward funds will support the operational requirements of outreach delivery to their neighborhood.

3. South Chicago Alderwoman Sadlowski-Garza represents a ward of the city currently at the forefront of the national environmental justice conversation. In early 2022, plans for General Iron to relocate a high impact industrial site from a wealthy, predominantly white neighborhood in North Chicago to the socioeconomically disadvantaged, predominantly Latinx 10<sup>th</sup> Ward were denied after a heated battle between residents and city government. Constituents of Alderwoman Sadlowski-Garza are now more engaged than ever in exploring and understanding quantifiable metrics for advocating for the health of their neighborhood. The Alderwoman's office has also collaborated with WHC for the past 10 years on increasing green space access, canopy distribution, and environmental education in her ward.

4. CommuniTree, a successful forestry collective based in northwest Indiana, has been sustained through diverse parties partnering according to the principals of the collective impact model, in which individuals and organizations from different sectors convene around a shared goal. The CommuniTree platform has served as an engagement mechanism, allowing businesses to initiate and participate in UCF efforts alongside municipalities, NGOs and nonprofits. In 2021, the platform facilitated extensive onboarding of new corporate industrial partners to leverage additional funding for UCF efforts. CommuniTree has planted over 8,000 trees in communities in the region, over 2,000 trees on industrial lands, and has new initiatives underway to mitigate industrial impacts of pollution runoff, abate the urban heat island impact, alleviate air pollution, remediate soil contamination and conduct ecological restoration. In engaging in this project and hosting data collection efforts at established urban forestry planting sites, CommuniTree seeks to better understand and articulate the impacts of completed UCF efforts and gain a tool for selection/prioritization of future planting resources to maximize beneficial environmental and public health impacts. Subaward funds (to Northwest Indiana Regional Planning Commission, an administrative body) will fund operational support with the logistics of a series of 3 community outreach events (1/calendar year of this project) bringing the information to the residents of the operating area across the Calumet watershed.

5. Wildlife Habitat Council collaborates with a suite of parties working on conservation and community development along the River Rouge as a member of the Fort Rouge Gateway Partnership. In partnership with the University of Michigan, Dearborn, Friends of the Rouge, MotorCity National

Heritage Area, United Auto Workers Local 600, Downriver Delta Community Development Corporation, and Marathon Petroleum's Detroit Refinery, this place-making effort has seen the creation of a park on the banks of the River Rouge to host community outreach events. The park is directly adjacent to Marathon Gardens, and an urban forestry site is being jointly planned and implemented by Marathon Detroit and Wildlife Habitat Council as a habitat reclamation and urban forestry site.

6. In Northwest Indiana, NEO (Neighbors' Educational Opportunity) Academy works to provide nontraditional and alternative opportunities for Indiana residents to meet their educational goals. With adult education classes, high school equivalency diplomas, ESL courses, and citizenship test preparation programs, NEO works to engage a broad audience in a wide variety of ways. Within this project, NEO Academy will engage learners in the SEMIS supported curriculum to bring math, atmospheric science, and the scientific method of hypothesis testing to life using real-life, real-time data collected by the sensor network. Subaward funds will pay staff for time spent embedding data-driven curriculum into their specialized suite of nontraditional educational offerings. NEO Academy is also collaborating with WHC on a 20-acre ecological restoration project engaging their students in regenerating and stewarding natural spaces on school property.

7. The Southeast Michigan Stewardship Coalition website articulates the SEMIS mission as "made up of educators, visionaries, resisters of injustice, public intellectuals and advocates, people with a lot of love for this world. SEMIS brings the art and craft of place-based education into core practices in schools, and advocates for transformational changes to K-12 institutions, colleges and universities, so that all living systems may thrive in sustainable, healthy and just communities." The data collected by the sensors deployed will be used by high school students at SE MI schools in place-based learning projects, facilitated and guided by the Coalition. Subaward funds will facilitate the deployment of SEMIS expertise in weaving the sensor installation and monitoring process into their annual teacher learning series to allow students across the Great Lakes Region to access the data, regardless of their status as a sensor host, through a lens of stewardship. All teachers are paid a stipend to participate, which SEMIS will also disburse from their subaward funding. In addition to inclusion across regional curricula, sensor data will be platformed in the SEMIS Place-Based Education series and accompanying Community Forums, empowering students to lead interdisciplinary projects activating and interpreting the collected data and showcase that work within their community.

This diverse coalition of Great Lakes community partners are connected by ongoing engagement in various Wildlife Habitat Council initiatives, and by their proximity to WHC members and certification sites. All partners listed here are long-term collaborators engaged in one or more ongoing projects or long-term programs within WHC's network. Including and convening these organizations in partnership with WHCs corporate stakeholders such as the Across Fence Lines case study partners at Marathon, Stellantis, in Calumet, and along the I-94 industrial corridor presents a unique opportunity to create parity among typically divided interests. Recognition and quantifying the benefits of voluntary corporate activity will provide valuable context for those partners, as mandated reporting exists on negative impacts, but success stories are rarely brought forward in air pollution conversations.

## **B. Community Engagement**

The above partner organizations selected for their representation of the highly impacted, vulnerable, and underserved communities of WHC's Great Lakes active regions will participate in the project. Educational partners, community partners, technical experts, and specialists in data accessibility will support collecting and bringing the data to as many audiences as possible in a variety of forms. From



engaging students of all levels to hosting workshops for residents not involved with the school system or unable to access internet-based resources, the following suite of partners will ensure the data has wide reaching and long-term impacts.

**Detroit Educational partners:** In Detroit, educational partners will focus on thorough, broadly accessible, and interdisciplinary utility of the collected data. The Southeast Michigan Stewardship Coalition, the University of Michigan, and the Fort Rouge Gateway Partnership will all engage their audiences in collecting interpreting, sharing, and engaging with the data set in different ways. SEMIS, a new WHC partner, will build utilization of the data set into their educator training series, reaching new educators annually. Sociology students at UMD (led by Prof. Paul Draus, PhD, frequent WHC collaborator on Alley Activation & urban forestry) will assist with sensor deployment, maintenance, and data workshops as part of a capstone course requiring community outreach.

**Detroit Community Based Partners:** Alkebu-Lan Village is a key WHC partner in the I-94 Industrial Corridor, and community air quality educational efforts will be incorporated into their ongoing tree plantings, youth workforce development programming, and strategic climate resilience projects funded by the National Fish & Wildlife Foundation and the United States Forest Service. On the other side of Detroit, in East Canfield, Canfield Consortium is led by long-time residents Kim & Rhonda Theus. Canfield Consortium has served as a community representative on a Community Benefits Agreement between Stellantis and the City of Detroit. The ongoing contention with nearby industrial parties has brought air quality to the forefront of community concerns about the health of their environment, and led to CC's engagement with WHC beginning in 2019. Exploring nature-based solutions such as rain gardens, urban canopy expansions, and environmental education programs for nearby schools led to a 2020 second-place award of \$50,000 in Salazar Center's Thriving Cities Challenge to for a team comprised of local community activist group Detroit Ain't Violent It's Safe (DAVIS), U.M Dearborn, WHC, and Canfield Consortium. The group explored the capacity of vacant alleys as sites for ecological uplift, habitat creation, food security improvement, and place-based learning. Many residents are also active within the Alley Activation project, as the site physically connects their residences and the adjacent Barack Obama Leadership Academy. Similarly, the Neighborhood Association (TNA) is a Homeowners Association of residents of Outer Drive, in Detroit. Led by president and resident advocate Charles Rivers, the informal collaborative of neighbors convenes monthly in-person during the summer and virtually every month year-round. The group focuses on asset-based community uplift and reclamation of their alley spaces. In summer 2021, WHC partnered with the Neighborhood Association, Canfield Consortium, and the University of Michigan, Dearborn to remove invasive species, plant pollinator habitat, and identify food-producing plants in the alleys to highlight the capacity of residential alleys with a showcase event for Detroit Month of Design. TNA has agreed to facilitate WHC-led presentation of data collected by the Canfield Consortium alley sensor site and consider hosting their own sensor station based on resident interest as the project develops. During this proposed project term, Canfield & AKBV will both build on their established partnership with WHC to each host an annual workshop series (1/yr for 3 yrs) explaining the sensor deployment and data collection to residents already active within air quality advocacy conversations. Air quality monitoring capacity development is complimentary to ongoing ecological reclamation taking place in partnership in both areas.

**Calumet Educational partners-** NEO Academy will host a sensor, embed data into their curriculum offerings, and incorporate the information into their "Energy Academy" project, promoting skills training in trades prominent in the area. With air quality monitoring expertise in

high demand for industrial compliance, this opportunity to teach analysis and interpretation with local, real-time data will lead to direct reinvestment of skills into the community workforce.

**Calumet Community Partners-** CommuniTree and the 10<sup>th</sup> Ward Alderwoman's Office offer different touchpoints and audiences to bring the results of the data collection effort to the general community. CommuniTree members will engage with the data on the Evolved platform to learn how their past planting efforts have changed neighborhood air quality, and be able to compare data from community sites to assess siting of future planting efforts. The Alderwoman's office will facilitate data sharing via workshops and site visits, and aid in selection of additional sites by soliciting input from constituents on how best to support ongoing advocacy efforts against high impact industries moving into their neighborhoods.

**Digital Outreach Partners:** In addition to in-person workshops, education programs, and outreach, two digital platforms have been identified to disseminate the results of this data collection effort to diverse audiences. The Evolved Group has been a partner of WHC and the CommuniTree collective since early 2021, developing an online "community" for information sharing, insights into how cultures and attitudes may change in a consumer group or audience, and AI driven learning about how participants interact with information. Continued use of the Evolved platform to share data connects the volunteers, students, and other CommuniTree participants (like NASCO) with an opportunity to learn how their labor and time have directly affected the air quality of their region, and where to best direct future efforts. The other digital platform, TEMBOO, will contract with WHC to guide the first phase of sensor & gateway installation, and provide two years of interpreted monitoring data in an accessible format via their "Daily Breather" reports conveying data in clear visuals for a broad audience.

### Section III: Environmental Justice

The metrics contextualizing the selected settings are powerful. In Detroit, the three focal regions score poorly on most indicators related to health and resilience. According to the CDC Social Vulnerability Index (SVI), Wayne County, Michigan, where all 3 sites are located, has an overall SVI score of 0.8682 on a scale of 0 (the lowest vulnerability score) to 1 (the highest vulnerability). The CDC Vulnerability Index measures a community's ability to respond to natural disasters, disease outbreaks or human-made incidents like a chemical spill, and .8682 indicates a high level of vulnerability. The 10<sup>th</sup> Ward of Chicago is in Cook County, which scored .6755, indicating a moderate-high level of vulnerability. According to the EPA's EJSCREEN, the region has the following environmental justice profile:

	Cook County	Wayne County	
Environmental Indicator	Compared to NW Indiana/ SE Chicago	Compared to USA	Compared to Michigan
Particulate Matter (PM) 2.5	80-90	80-90 percentile	90-100 percentile
PCT Low Income Residents		53-100%	53-100%
Proximity to facilities with Risk Management Plans	80-100	90-100 percentile	95-100 percentile
NATA Air Toxics Cancer Risk	80-95	70-95 percentile	90-100 percentile

In the I-94 corridor residential focal area, 49.4 % of people live below the poverty line, including 41.1% of the neighborhood children. In the Alkebu-Lan Village partner neighborhood, census information shows 55.2% of this block's residents earn income at or below the poverty level. Census information shows 60.2% of children in this census block live in households at or below the poverty level. These metrics are mirrored by the southern neighborhood adjacent to Marathon, and E. Canfield.

Notably, the regions included in this proposal have a complex system of air monitoring stations and sensors managed by USEPA, Indiana State Department of Environmental Management, Illinois EPA, and Michigan EGLE in place. In addition, most of the municipalizes included in this project also have installed monitoring sensors along busy Calumet River Industrial Corridor (City of Chicago 10<sup>th</sup> Ward), East Chicago, Whiting and Portage locations next to steel mills, refinery and Port of Indiana; and on inside and outside industrial facilities located in all three regions of Detroit, along I-94, the River Rouge, and in East Canfield. However, considering a long history of city governmental failure to maintain public facilities and services, community groups in all four regions indicate interest in independent data and increased clarity on the implications of existing data. We plan to expand use of community monitoring advisory groups by providing schools and community development organizations with the air monitoring equipment, air monitoring sensor connectivity, ambient air pollution data gathering and interpretation to give these community a more pro-active and informed voice in monitoring their air quality.

#### Section IV Environmental Results: Outcomes, Outputs, and Performance Measures

##### A. Expected Project Outputs and Outcomes

**Key Output I:** Leverage and expand on existing air quality monitoring expertise the established AKBV program. TEMBOO technical training will enable replication of this effort by communities.

**Key Output II:** Expanded access for active community monitoring advisory groups across Detroit and in Chicago's 10<sup>th</sup> ward to current/local data to grow advocacy capacity.

**Key Output III:** Develop productive relationships and enhance collaboration between corporate and community leaders to understand and advance solutions to local air pollution issues.

Category	Output	Metric
Short Term Outcomes	Sensor deployment monitoring air quality in underserved communities	# Sensors installed
	Increased community awareness	# Community members reached via in person workshops, courses, & digital outreach
	Increased access to information and tools that increase understanding and reduction of environmental and human health risks.	# Evolved, Temboo interactions
		# Types of green infrastructure assessed for AQ benefit
Med. Term Outcomes	Mitigation action(s) from parties responsible for certain air pollution.	# Students taught to interpret the data
	Near real-time air quality data availability for communities and other stakeholders	# Corporate greening projects initiated
	Promotion of partnerships and community involvement through activities & information exchanges	# Creation of access to TEMBOO outreach, SEMIS student projects, and Evolved updates
		# Workshops at Alkebu-Lan Village, Canfield Consortium, The Neighborhood Association, & 10 <sup>th</sup> Ward office, Digital outreach

	Community action to mitigate PM <sub>2.5</sub>	# Community forestry projects initiated
<b>Long Term Outcomes</b>	Reduction of ambient concentrations of PM <sub>2.5</sub>	# Canopy/vegetative buffer augmentations initiated by corporate stakeholders
	Reduction of human exposure to PM <sub>2.5</sub>	

## B. Performance Measures and Plan

Project success will be measured by timely installation of sensors, engagement of students by number, community members reached at workshops, and engagement metrics from digital platforms. Success will also be reflected in developed capacity for community representatives and students to continue sensor installation, monitoring, and result assessment independent of expensive technical consultancies & WHC technical support. Project Evaluation will be systematic progress which attempts to assess, as objectively as possible, progress towards the goals of the project. Terminal evaluation will assess the achievement of the project's objectives in the final report.

### (OB) Timeline and Milestones

Region	Action Item	2022		2023												2024												2025	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
		Kickoff	Phase I- Guided implementation at schools												Phase II- Community led implementation at UCF sites, community selected sites													Final report	
Calumet	Site finalization: confirmation & preparation																												
	NEO Academy installation																												
	George Washington HS urban forest installation																												
	Monitoring efforts for phase 1																												
	Monitoring efforts for phase 2																												
	Data interpretation																												
	Community workshop series																												
La Grange	Digital Outreach																												
	Partnership with 10th Ward Office of Alderwoman Sadiowski-Garza																												
	SEMIS-guided curriculum inclusion in place-based learning																												
	The Evolved Group- Community outreach engagement & activation																												
	Site finalization: confirmation & preparation																												
	School site installation with SEMIS school 1																												
	AKBY installation																												
E. Canfield	Monitoring efforts for phase 1																												
	Monitoring efforts for phase 2																												
	Data interpretation																												
	SEMIS-guided curriculum inclusion in place-based learning																												
	Community workshop series																												
	Collaboration with Alkebu-Lan Village																												
	Tamboo- Site 1/3 for regular outreach																												
River Rouge	Digital Outreach																												
	Site finalization: confirmation & preparation																												
	School site installation with SEMIS school 2																												
	Cenfield Consortium installation																												
	Monitoring efforts for phase 1																												
	Monitoring efforts for phase 2																												
	Data interpretation																												
River Rouge	SEMIS-guided curriculum inclusion in place-based learning																												
	Community workshop series																												
	Collaboration with Fort Rouge Gateway Partnership																												
	Tamboo- Site 2/3 for regular outreach																												
	Digital Outreach																												
	Site finalization: confirmation & preparation																												
	School site installation with SEMIS school 3																												

## Section V- Quality Assurance Statement (see optional attachments section)

## Section VI - Programmatic Capability and Past Performance

### A. Past Performance:

1. In 2019, the US Forest Service Urban and Community Forestry program awarded a grant (NO. 20-DG-11132544-028) to WHC for *Across Fence Lines: Connecting Corporate America to America's communities through public-private forestry programs*. This collaboration successfully created a road map towards a best-in-class approach for corporate engagement on urban and community forestry. The project completed urban forestry case studies in Arizona, New Jersey, Illinois, Indiana and Michigan.

2. In 2020, WHC secured USFS Great Lakes Restoration Initiative funding (21-DG-11094200-003) for the project *Calumet Industries and Communities Working Together to Reduce Runoff*. This project is in

late-stage implementation of working with the Illinois International Port District, the city of Chicago 10<sup>th</sup> Ward, PVS Chemicals and the Chicago Park District to plant 500 trees and reclaim 20 acres of shoreline within industrial and residential communities in the Calumet River watershed.

3. In 2021, a USFS GLRI project titled *Building Resilience with Green Corridors in Neighborhoods and Alleyways in Detroit* was funded (22-DG-11094200-022), with a workforce development program focused on urban ecology, and stormwater and pollution reduction interventions: tree plantings, invasive species removal, rain garden installation, and impermeable surface removal. Projects are codesigned with volunteers from local corporations, community centers, and local government.

4. In 2021, WHC was awarded an EPA Pollution Prevention Source Reduction Assistance (SRA) grant for Region IV: *Nature-Based Solutions for Pollution Prevention in the US Automotive Supply Chain* assess the feasibility of nature-based interventions as source-reduction tactics in automotive supply chain.

5. In 2022: The National Fish & Wildlife Foundation funded WHC proposal (#73727) *Collaborative Alley Activation and Recreational Area Revitalization along Detroit's I94 Corridor*. This funding creates pollinator habitat, community gardens, and increases equitable access to green spaces in vulnerable, underserved communities of Detroit.

#### B. Reporting Requirements:

1. For *Across Fence Lines*, reporting milestones were met in a timely manner, and a no-cost extension due to complications of carrying out nationwide case studies during Covid-19 was procured extending the completion date to March 31<sup>st</sup>, 2022. Final reporting documents were submitted in January, 2022 to the satisfaction of the USFS.
2. The Calumet USFS GLRI project *Calumet Industries and Communities Working Together to Reduce Runoff* is nearing timely completion of promised deliverables (anticipated for September 2022). Interim reporting deadlines have been met.
3. The USFS Detroit area GLRI project is in early stages, and initial reporting deadlines were met on time. The project is ahead of schedule on site design and community engagement.
4. EPA Region IV. P2- all reporting deadlines have been met in a timely manner and the project is scheduled to be completed as planned.
5. NFWF review of federal act compliance documentation for the project *Collaborative Alley Activation and Recreational Area Revitalization along Detroit's I94 Corridor* is underway to launch the funding awarded in February of 2022. Beyond submittal of pre-work compliance documentation, no reporting benchmarks have passed yet.

C. **Staff Expertise:** WHC has 30 years of experience partnering with corporations, their employees, fellow conservation organizations, government agencies, and community members to recognize and encourage wildlife habitat projects for conservation and education. This proposal engages a diverse subset of current WHC staff with years of community-based experience, and academic or certification validated qualifications in landscape ecology, educational program design, data interpretation, and outreach. Please see Optional Attachments for specific staff qualifications.

### Section 7: Budget Table & Reasonableness

#### A. Detailed budget table

Line Item & Itemized Cost	EPA Funding
<b>Personnel</b>	
Project Manager (x2/split regional management) 10 hrs/wk @ \$25/hr x 100 wks	\$50,000
Project Coordinator (OTG support) 20 hrs/wk * \$20/hr x 100 wks	\$40,000

Technical Services Director (Quality Assurance) 50 hrs @ \$100/hr	\$5,000
Operations Support Staff (Reporting & Admin) 1 hr/wk @ \$50/hr * 100 wks	\$5,000
<b>Total Personnel</b>	<b>\$100,000</b>
<b>Fringe Benefits</b>	
27% of salary and wages @ 27% x total personnel. - Retirement, health benefits, PTO, sick leave, FICA, SUI	\$27,000
<b>Total Fringe Benefits</b>	<b>\$27,000</b>
<b>Travel</b>	
1 flight/hotel/yr from PA for QA/QC consults, community trainings by S. Cook	\$5,000
Mileage- Chicago/Detroit- 40 miles/day x 100 trips (1/wk, 2 yrs) each city	\$4,680
<b>Total Travel</b>	<b>\$9,680</b>
<b>Equipment</b>	
Sensors (7/site, 12 sites = 84 * \$339.95)	\$29,000
<b>Total Equipment</b>	<b>\$29,000</b>
<b>Supplies</b>	
Printing of materials/assorted supplies for reuse at each workshop series	\$3,320
<b>Total supplies</b>	<b>\$3,320</b>
<b>Contractual</b>	
Temboo- installation guidance, gateways, enclosures, signal testing, platform for interpretation/outreach of results, support	\$70,000
Evolved@ 2 years platform service @8k/yr, (3 <sup>rd</sup> year provided as match)	\$16,000
<b>Total Contractual</b>	<b>\$86,000</b>
<b>Other</b>	
Subaward- Alkebu-Lan Village	\$15,000
Subaward- Canfield Consortium	\$10,000
Subaward- SE MI Stewardship Coalition	\$150,000
NIRPC/CommuniTree Support	\$10,000
NEO Academy	\$10,000
<b>Total Other</b>	<b>\$195,000</b>
<b>Indirect Charges</b> 10% de minimis indirect rate x personnel total of \$100,000	\$10,000
<b>Total Indirect Charges</b>	<b>\$10,000</b>
<b>Total EPA Funding Requested</b>	<b>\$460,000</b>
Voluntary Match: Evolved Group (8k), DTE Foundation (\$50k), Marathon Foundation (35k), Donnelly Foundation (\$20k) Chicago 10 <sup>th</sup> Ward Office (10k)	\$123,000
<b>Total Project Cost</b>	<b>\$583,000</b>

### C. Expenditure of Awarded Funds

Spending is expected to be weighted toward early grant phases on contract agreements, equipment and supply purchase, and subaward disbursement to partners. Ongoing travel and payroll expenditures will be tracked and measured against remaining available funding quarterly, in accordance with established internal grant management practices, to adaptively ensure spending is timely and efficient.